Remarks

The Office Action mailed November 16, 2005 has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-8 are now pending in this application. Claims 3 and 4 are allowed. Claims 1 and 2 are rejected. Claims 5-8 are newly added. Claims 1, 3, and 4 have been amended. No new matter has been added. No fees are due for the newly added claims.

Applicants respectfully submit that no acknowledgment has been made of a claim for foreign priority. Applicants submitted the claim for foreign priority on April 2, 2004. Accordingly, Applicants respectfully request that the acknowledgment be made.

The objections to the drawings is respectfully traversed. Applicants have amended the detailed description. Accordingly, Applicants respectfully request that the objections to the drawings be withdrawn.

The objections to Claims 1-4 is respectfully traversed. Applicants have amended Claims 1, 3, and 4. Claim 2 depends from independent Claim 1. Accordingly, Applicants respectfully request that the objections to Claims 1-4 be withdrawn.

The rejection of Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Feldman et al. (U.S. Patent No. 5,095,431), referred to as Feldman I, in view of Horiba et al. (U.S. Patent No. 4,342,020) is respectfully traversed.

Feldman I describes an x-ray scanner including an x-ray source (30) and a detection device (31) having a plurality of detectors or channels (35) between which is interposed a patient's body in normal operation or a standard (32) of elliptical shape at the time of calibration operations (column 4, lines 40-45). A curve (43) corresponds to an angular position in which the elliptical standard is irradiated along the major axis of the ellipse (column 5, lines 30-32). A curve (44) corresponds to an angular position in which the standard is irradiated along the minor axis of the ellipse (column 5, lines 32-35).

Horiba et al. describe a system in which a plurality of correction values are determined by using a plurality of phantom elements (b, c, d, e and f) (FIG. 2 (A), (B), (C), (D) and (E)), respectively (column 5, lines 32-35). The elements are each formed in a columnar or disc-like shape and made of a material having an X-ray absorptivity substantially the same as that of the subject (column 5, lines 35-39)

Claim 1 recites a correction coefficient calculating method for X-ray CT systems, comprising the steps of "positioning a phantom, which has an oblong section, in a scan field between an X-ray tube and an X-ray detector, and scanning the phantom from plural directions so as to acquire a plurality of views; and calculating a final correction coefficient, which is used to correct projection information to be acquired from a subject, using a plurality of results of the scan; and determining a first correction coefficient and a second correction coefficient, wherein said calculating the final correction coefficient comprises computing the final correction coefficient from the first and second correction coefficients, wherein the first coefficient is calculated from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient."

Neither Feldman I nor Horiba et al., considered alone or in combination, describe or suggest a correction coefficient calculating method as recited in Claim 1. Specifically, neither Feldman I nor Horiba et al., considered alone or in combination, describe or suggest determining a first correction coefficient and a second correction coefficient, where calculating the final correction coefficient includes computing the final correction coefficient from the first and second correction coefficients, where the first coefficient is calculated from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Rather, Feldman I describes irradiating an elliptical standard along the major axis of the ellipse and irradiating the standard along the minor axis of the ellipse. A description of irradiating the same elliptical standard along the major and minor axes of an ellipse does not teach calculating the first coefficient from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Horiba et al. describe a determining a plurality of correction values by using a plurality of phantom elements. A description of determining a plurality of correction values by using a plurality of phantom elements does not teach

calculating the first coefficient from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Accordingly, neither Feldman I nor Horiba et al., considered alone or in combination, describe or suggest calculating the final correction coefficient includes computing the final correction coefficient from the first and second correction coefficients, where the first coefficient is calculated from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. For the reasons set forth above, Claim 1 is submitted to be patentable over Feldman I in view of Horiba et al.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claim 1 be withdrawn.

The rejection of Claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Feldman I and Horiba et al., and further in view of Feldman et al. (French Patent Application Publication Number 2656697), referred to as Feldman II, is respectfully traversed.

Feldman I and Horiba et al. are described above.

Feldman II describes a procedure for measurement of a density. The procedure includes generating a correlation (page 5, lines 8-18). The correlation is a polynomial including a plurality of coefficients a, b, and c, which are obtained by using a phantom of simulation of average stoutness (page 5, lines 8-18). The polynomial also includes a plurality of coefficients A, B, and C, which are obtained by using a phantom of simulation of stoutness different from that of phantom of average stoutness (page 5, lines 8-18).

Claim 2 depends from independent Claim 1 which is recited above. None of Feldman I, Horiba et al., or Feldman II, considered alone or in combination, describe or suggest, a correction coefficient calculating method as recited in Claim 1. Specifically, none of Feldman I, Horiba et al., or Feldman II, considered alone or in combination, describe or suggest determining a first correction coefficient and a second correction coefficient, where calculating the final correction coefficient includes computing the final correction coefficient from the first and second

correction coefficients, where the first coefficient is calculated from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Rather, Feldman I describes irradiating an elliptical standard along the major axis of the ellipse and irradiating the standard along the minor axis of the ellipse. A description of irradiating the same elliptical standard along the major and minor axes of an ellipse does not teach calculating the first coefficient from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Horiba et al. describe a determining a plurality of correction values by using a plurality of phantom elements. A description of determining a plurality of correction values by using a plurality of phantom elements does not teach calculating the first coefficient from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Feldman II describes generating a correlation as a polynomial including a plurality of coefficients a, b, and c, which are obtained by using a phantom of simulation of average stoutness. The polynomial also includes a plurality of coefficients A, B, and C, which are obtained by using a phantom of simulation of stoutness different from that of phantom of average stoutness. A description of generating a plurality of coefficients from a phantom of average stoutness and a plurality of coefficients from a phantom of stoutness other than the average stoutness does not teach calculating the first coefficient from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. Accordingly, none of Feldman I, Horiba et al., or Feldman II, considered alone or in combination, describe or suggest calculating the final correction coefficient includes computing the final correction coefficient from the first and second correction coefficients, where the first coefficient is calculated from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient. For the reasons set forth above, Claim 1 is submitted to be patentable over Feldman I and Horiba et al. in view of Feldman II.

When the recitations of Claim 2 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 2 likewise is patentable over Feldman I and Horiba et al. in view of Feldman II.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claim 2 be withdrawn.

Moreover, Applicants respectfully submit that the Section 103 rejections of Claims 1 and 2 are not proper rejections. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Feldman I, Horiba et al., or Feldman II, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Feldman I with Horiba et al. or Feldman II because there is no motivation to combine the references suggested in the cited art itself.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejections are based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Feldman I teaches irradiating an elliptical standard along the major axis of the ellipse and irradiating the standard along the minor axis of

the ellipse. Horiba et al. teach a determining a plurality of correction values by using a plurality of phantom elements. Feldman II teaches generating a correlation as a polynomial including a plurality of coefficients a, b, and c, which are obtained by using a phantom of simulation of average stoutness. The polynomial also includes a plurality of coefficients A, B, and C, which are obtained by using a phantom of simulation of stoutness different from that of phantom of average stoutness. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejections appear to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejections of Claims 1 and 2 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the rejections of Claims 1 and 2 under 35 U.S.C. 103(a) be withdrawn.

Newly added Claims 5-8 depend from independent Claim 1, which is submitted to be in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claims 5-8 are also patentable over the cited art.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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